

Notice of Allowability**Application No.**

10/045,682

Examiner

Michael Y. Won

Applicant(s)

BYRNE ET AL.

Art Unit

2155

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Petition Decision filed on May 17, 2006 and Amendment filed on July 10, 2006.
2. ☒ The allowed claim(s) is/are 1 and 45-88.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other ____


SALEH NAJJAR
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. This action is in response to the Petition Decision filed on May 17, 2006 and the Amendment filed July 10, 2006.
2. Claim 1 has been amended and claims 2-44 have been cancelled.
3. New claims 45-88 have been added.
4. Claims 1 and 45-88 have been examined and are pending with this action.

EXAMINER'S AMENDMENT

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert C. Kowert (Reg. No 39,255) on October 11, 2006.

6. The application has been amended as follows:

75. (Currently Amended) A tangible, computer-readable storage medium, comprising program instructions, wherein the instructions are computer-executable to:

store access control information for a particular node of a tree of nodes representing entities managed by a directory server, wherein the access control information comprises at least one macro entry;

in response to a request from a requester for a directory server operation targeted at a node of the tree,

generate an expanded version of the access control information using the at least one macro entry, wherein the expanded version includes additional information derived from one or more attributes stored at the directory server;

determining whether the requester has permission for the directory server operation, wherein said determining comprises comparing at least a portion of the expanded version of the access control information with one or more attribute values of the requester;

in response to determining that the requester has permission, perform the directory server operation; and

in response to determining that the requester does not have permission, provide a failure indication to the requester.

76. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the expanded version is derived at least in part by replacing the at

least one macro entry with at least one substitute string derived from the one or more attributes stored at the directory server.

77. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the request is targeted at the particular node, and wherein the additional information is derived from one or more attributes of the particular node.

78. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the particular node is a root node of a subtree of other nodes of the tree, wherein the request is targeted at an other node of the subtree, and wherein the additional information is derived from one or more attributes of the other node.

79. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein said determining whether the requester has permission for the directory server operation comprises determining whether an attribute value of the requester matches an attribute value specified in the expanded version of the access control information.

80. (Currently Amended) The computer-readable storage medium as recited in claim 79, wherein the at additional information comprises a plurality of fields, wherein said determining whether the requester has permission for the directory server operation comprises:

in response to determining that the attribute value of the requester does not match the expanded version, modifying the expanded version by removing at least one field of the plurality of fields from the expanded version; and

determining whether an attribute value of the requester matches an attribute value specified in the modified expanded version of the access control information.

81. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the access control information comprises two or more macro entries, including a target macro entry in a portion of the access control information identifying a target object to which access is to be controlled and a subject macro entry in a portion of the access control information specifying attributes of requesters to whom access is to be provided.

82. (Currently Amended) The computer-readable storage medium as recited in claim 81, wherein said generating the expanded version comprises replacing the target macro entry with a first substitute string, and replacing the subject macro entry with a second substitute string derived from the first substitute string.

83. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the at least one macro entity identifies an attribute name, wherein the additional information is derived from a value of an attribute identified by the attribute name.

84. (Currently Amended) The computer-readable storage medium as recited in claim 83, wherein the attribute identified by the attribute name is a multi-valued attribute, wherein the directory server stores at least a first value and a second value for the multi-valued attribute for the node targeted by the request, wherein the additional information comprises the first value of the multi-valued attribute, wherein said determining whether the requester has permission comprises:

comparing a portion of the expanded version including the first value with the requester's value of the multi-valued attribute;

in response to determining that the portion of the expanded version does not match the requester's value, generating a second expanded version of the access control information by replacing the first value of the multi-valued attribute in the expanded version with the second value of the multi-valued attribute; and

comparing a portion of the second expanded version including the second value with the requester's value of the multi-valued attribute.

85. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the additional information is derived from a distinguished name of a node of the tree.

86. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the at least one macro entry is included within a portion of the access

control information that identifies a distinguished name of a group of entities defined at the directory server.

87. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the at least one macro entity is included within a portion of the access control information that identifies a distinguished name of a role defined at the directory server.

88. (Currently Amended) The computer-readable storage medium as recited in claim 75, wherein the at least one macro entity is included within a portion of the access control information that identifies at least one of: a distinguished name of a user identified at the directory server, a user attribute defined at the directory server, and a target filter used by the directory server to select nodes to which access control information applies.

Allowable Subject Matter

7. The following is an examiner's statement of reasons for allowance:

The prior art of record does not disclose, teach, or suggest neither singly nor in combination the claimed limitation of "generating an expanded version of the access control information using the macro, wherein the expanded version comprises additional

information derived from one or more attributes stored at the directory server;" as recited in claim 1 and similarly recited in claims 45, 60, and 75.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

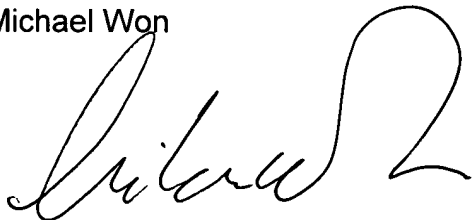
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Y. Won whose telephone number is 571-272-3993. The examiner can normally be reached on M-Th: 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Won



October 12, 2006



SALEH NAJJAR
SUPERVISORY PATENT EXAMINER